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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/939,128

08/24/2001

J. Douglas Child

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02/17/2004

TEXAS INSTRUMENTS INCORPORATED

P O BOX 655474, M/S 3999

DALLAS, TX 75265

EXAMINER

BELL, MELTIN

ART UNIT

PAPER NUMBER

2121

DATE MAILED: 02/17/2004

3

Please find below and/or attached an Office communication concerning this application or proceeding.

229

Office Action Summary	Application No.	Applicant(s)	
	09/939,128	CHILD ET AL.	
	Examiner	Art Unit	
	Meltin Bell	2121	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 August 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 August 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input checked="" type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>1</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This action is responsive to application **09/939,128** filed **8/24/01**.

Claims 1-12 have been examined.

Information Disclosure Statement

Applicant is respectfully reminded of the ongoing Duty to disclose 37 C.F.R. 1.56 all pertinent information and material pertaining to the patentability of applicant's claimed invention, by submitting in a timely manner PTO-1449, Information Disclosure Statement (IDS) with the filing of applicant's application or thereafter.

The information disclosure statement filed 8/24/01 lists a Nakayama patent without indicating other inventors on the patent ("et. al.").

Drawings

The United States Patent and Trademark Office of Draftsperson's Patent Drawings Review have reviewed the formal drawings. They are objected to by the Draftsperson under 37 CFR 1.84 or 1.152 for the reasons indicated on the Form PTO-948, Notice of Draftsperson's Patent Drawing Review.

The drawings have not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is required in correcting any errors of which applicant may become aware in the drawings.

The drawings are objected to because:

Art Unit: 2121

- Fig. 2's label is too high.
- The number for the screen of Fig. 1, item 11 suggested on page 4, paragraph 2 is barely legible.
- The terminating points of Fig. 2 labels 12a-c suggested on page 4, paragraph 4 are unclear.
- Dashed selection box 114 in Fig. 3 is not labeled as suggested on page 7, paragraph 2
- Prompt line 116 in Fig. 3 is not labeled as suggested on page 7, paragraph 2

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is required in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-12 are rejected under 35 U.S.C. 102(b) as being anticipated by *Smith et al* U.S. Patent Number 5,046,024 (September 3, 1991).

Regarding claim 1:

Smith et al teaches,

- a screen capable of displaying mathematical expressions (Fig. 3; column 4, lines 11-15, "user operable means... associated with display 12c")
- a key panel having keys operating the calculator and entering user responses (column 3, lines 11-23, "display and program... complex logarithmic functions")
- a processor for executing programming that provides a user interface to assist the user in learning to solve a mathematical symbolic calculation problem (column 2, lines 36-66, "Display processors make... been provided heretofore")
- and expert programming which provides a set of transformations for a mathematical object that the user can choose from and apply to the mathematical object to produce the next step in a solution to the problem (column 2, lines 18-36, "In the electrical... any given node")

Regarding claim 2:

The rejection of claim 1 is incorporated. Therefore, claim 2 is rejected under the same rationale as claim 1.

Regarding claim 3:

Smith et al further teaches,

- said processor is further programmed to pause after the user selects the transformation before applying the transformation to the problem (Fig. 3, item 42,

Art Unit: 2121

ENTER key; column 6, Table I; column 7, lines 14-22, "Expression subwindow 44 ... operation unit 30")

Regarding claim 4:

Smith et al further teaches,

- said processor is further programmed to clean-up the result of a previous transformation in response to the user pressing a key, where clean-up consists of arithmetic and other basic simplification for the problem (Fig. 3, item 42, CLX key; column 6, Table I)

Regarding claim 5:

The rejection of claim 1 is incorporated. Claim 5's further limitations are taught in the rejection of claim 4. Therefore, claim 5 is rejected under the same rationale as claims 1 and 4.

Regarding claim 6:

Smith et al further teaches,

- said processor is further programmed to provide a set transformation tools for a mathematical sub-object that the user can choose from and apply to the mathematical sub-object in a selection box to produce the next step in a solution to the problem (column 5, lines 60-68, "Referring finally to...which one or"; column 6, lines 1-18, "more may be...of such manipulation.")

Regarding claim 7:

Smith et al further teaches,

- a screen capable of displaying mathematical expressions (Fig. 3; column 4, lines 11-15, "user operable means... associated with display 12c")
- a key panel having keys operating the calculator and entering user responses (column 3, lines 11-23, "display and program... complex logarithmic functions")
- a processor for executing programming that provides a user interface to assist the user in learning to solve a mathematical symbolic calculation problem (column 2, lines 36-66, "Display processors make... been provided heretofore")
- and expert programming which provides a set of transformations for a mathematical object that the user can choose from and apply to the mathematical object to produce the next step in a solution to the problem (column 2, lines 18-36, "In the electrical... any given node")

Regarding claim 8:

The rejection of claim 7 is incorporated. Therefore, claim 8 is rejected under the same rationale as claim 7.

Regarding claim 9:

Smith et al further teaches,

- said processor is further programmed to pause after the user selects the transformation before applying the transformation to the problem (Fig. 3, item 42, ENTER key; column 6, Table I; column 7, lines 14-22, "Expression subwindow 44 ... operation unit 30")

Regarding claim 10:

Smith et al further teaches,

- said processor is further programmed to clean-up the result of a previous transformation in response to the user pressing a key, where clean-up consists of arithmetic and other basic simplification appropriate for the problem (Fig. 3, item 42, CLX key; column 6, Table I)

Regarding claim 11:

The rejection of claim 7 is incorporated. Claim 11's further limitations are taught in the rejection of claim 10. Therefore, claim 11 is rejected under the same rationale as claims 7 and 10.

Regarding claim 12:

Smith et al further teaches,

- said processor is further programmed to provide a set transformation tools for a mathematical sub-object that the user can choose from and apply to the mathematical sub-object in a selection box to produce the next step in a solution to the problem (column 5, lines 60-68, "Referring finally to...which one or"; column 6, lines 1-18, "more may be...of such manipulation.")

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

- *Smith et al*; U.S. Patent Number 5,046,024

Art Unit: 2121

- *Smith et al*; U.S. Patent Number 5,199,103; Vector Calculator Apparatus for Graphic Waveform Manipulation

- *McCannon*; U.S. Patent Number 5,050,312; Graphic Calculator

- *Kono*; U.S. Patent Number 6,229,694; Handheld Computer and Data Processing System

Any inquiry concerning this communication or earlier communications from the Office should be directed to Melvin Bell whose telephone number is 703-305-0362.

This Examiner can normally be reached on Mon - Fri 7:30 am - 4:30 pm.

If attempts to reach this Examiner by telephone are unsuccessful, his supervisor, Anil Khatri, can be reached on 703-305-0282. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

MB/ *MB, H.*



GEORGE B. DAVIS
PRIMARY EXAMINER